

Attorney's Docket No.: 14580-031001

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of forming a vertical ferromagnetic capacitor comprising forming a crystalline ferroelectric layer by a process including the steps of:

depositing a ferroelectric layer of amorphous ferroelectric material directly on a layer of a first electrically insulating material;

depositing a layer of a second electrically insulating material to cover the ferroelectric layer;

etching the ferroelectric layer and the layer of the second electrically insulating material to form isolated ferroelectric elements which have exposed side surfaces that are substantially perpendicular to the ferroelectric layer;

providing a layer of a conductive material in contact with each of the side surfaces; and

performing an annealing step to crystallize the ferroelectric material;

the conductive material promoting crystallization of the ferroelectric material to a higher degree than the first and second electrically insulating materials, whereby the

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crystallization proceeds substantially horizontally through each of the ferroelectric elements.

2. (Cancelled)

3. (Original) A method according to claim 1 in which the second material is TiO_2 .

4. (Currently amended) A method according to claim 3 in which the TiO_2 is formed by depositing Ti on at least the side surfaces of the ferroelectric elements, and oxidizing the Ti to form TiO_2 .

5. (Currently amended) A method according to claim 4 in which the Ti is oxidized to TiO_2 by chemical reaction with the ferroelectric material.

6. (Original) A ferroelectric device including a ferroelectric capacitor produced by a method according to claim 1.

7. (Original) A method according to claim 1 further including depositing electrode elements of conductive material between the ferroelectric elements.

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8. (Original) A method according to claim 1 in which the ferroelectric material is PZT.

9. (Original) A ferroelectric capacitor produced by a method according to claim 1.

10. (Original) A FeRAM memory device including a ferroelectric capacitor produced by a method according to claim 1.

11-12. (Cancelled)